Expanding the Legal/ Admin. Package of the Cadastral Domain Model

COST G9 WG’s 1&2 / FIG Commission 7 Workshop
Bamberg, Germany, 9-10 December 2004

Jaap Zevenbergen

December 9, 2004

OTB, Delft University of Technology, The Netherlands
Agenda

1. Earlier version of the package
2. Ideas for expansion
   1. not a ‘mere’ association class
   2. attention to ‘person-less’ rights/restrictions
   3. specializations of abstract class
   4. rights of one or restrictions to another
   5. alternative packaging
3. Implementation problems
4. Final Remarks
Earlier version of the package

- RightOrRestriction as a association class
- Not very elaborated
  - RightOrRestriction with lookup table
  - Mortgage which sits on a RoR (no person attached)
  - Public Restriction (with no person attached)
Right defines parcel

- Parcel not a natural phenomena
  - but an institutional creation
- The extend of the right determines parcel
  - different specializations of RealEstateObject are caused by variety in rights/restrictions

- Thus RoR can not be association class: it is leading!
Types of rights and restrictions

- Private law rights
  - Main right (ownership, freehold, ..)
  - Derived right (to use whole)
  - Minor rights (servitudes, ..)
  - Security rights (mortgage, ..)
- Joint facilities (other ‘parcels’ are beneficiary)
- Not always clear identified beneficiary
Types of rights and restrictions

- Public law restrictions
  - can be related to (private law) ‘parcel’
  - can have their own area
  - can follow from natural occurring phenomena
- Beneficiary
  - often ‘anonymous’ government or society
  - sometimes certain department, ..
- Also responsibilities (to do something), whereas restrictions is to allow or not to do something
Rights minus restrictions

- Except for Main Rights, all other rights have both a beneficiary and ‘burdened’ right/right holder
- How to reflect this?
  - Always show beneficiary when identifiable
  - Also show with burdened right that something is carved out of that right?
- e.g. Dutch solution:
  - full ownership VE
  - ownership with superfices on it: EVOP + OP
Packaging

- Now packages are showing (mainly) specializations of core classes; aspect systems of the whole

- Since different types of rights are main reason for different types of real estate objects -->
  - packages of a certain type of rights with appropriate real estate object(s)
Implementation problems

- Complexity of nested rights and restrictions will not give a model that is easily understood
- Decision on what to treat as separate class and what to put into ‘lookup table’ within a class (per (sub) type of rights) likely to be dominated by national situation
- Difference between ‘ownership with carving out derived rights’ versus ‘bundles of sticks’ in modeling
Final Remarks

• Pure Western model, elsewhere have to include:
  • customary, indigenous, informal ‘rights’
  • conflicts, incl. overlap

• Ideas presented need to be modeled

• Modeling choices not free of the (main) reason for modeling
Final Remarks

• Legal administrative side needs to be extended:
  • RoR is more than an association class
  • We need a ‘implied person’ specialization of Person
  • RoR as an abstract class with specializations
    • ‘carved out’ rights should be dependent upon the main right
  • Different type of packages can help clarify the situation